Not only were we running flat and surprisingly stable in the 15-knot breeze and a decent chop in Rosario Strait off Anacortes, but at a speed of 20 knots we were travelling 1.75 miles for every gallon (3.8 litres) of gas burned—a very impressive figure. Those attributes—stability and excellent fuel efficiency—are among the reasons for the huge success of Larry Graf’s Aspen Power Catamarans. Their latest model, the C107 (36 feet, eight inches/11.2 metres), is their first foray into outboard power and I was fortunate to test it.

WHAT’S A PROA? For those not familiar with Larry Graf’s Aspen Power Catamarans, the Burlington, Washington-based company designs and builds a popular line of high-speed, full-displacement proa catamarans. By definition, proas have one hull that is narrower than the other, and in the case of Aspens, the port hull is 35 percent thinner than the starboard hull, which means less overall drag. Graf says his Aspens have at least 50 percent less drag than an equivalent-size monohull, and less drag means less power (and fuel) is required to move through the water.

Until now, Aspen’s proas—from 28 to 40 feet (8.5 to 12.2 metres)—were powered by a single, shaft-drive diesel in the starboard hull. In one 40-foot Aspen I tested in Alaska, we were travelling more than three miles per gallon at 16 knots. Recently though, the hull of their 32-foot

ASPEN C107 POWERCAT

Another winner from Aspen—this time with outboards

BY PETER A. ROBSON
(9.8-metre) model (C100) was redesigned to accommodate twin outboards—a 70-horsepower Yamaha on the narrower port hull and a 200-horsepower Yamaha on the starboard hull. Both outboards are rated for the same rpm range (5,000-6,000), the same lower unit gear ratio and have similarly pitched props. Each outboard delivers thrust that is proportional to its horsepower at the same rpm.

OUTBOARD SHIFT According to Graf, the reason for the move to outboards, which aren’t as fuel efficient as a single diesel inboard, was because some customers wanted the advantages that twin outboards have over a single diesel. Those include the redundancy of two motors, the ability for fishers to troll at slower speeds than with the diesel, the ability to partially raise the outboards in shallow waters (reducing draft to about 22 inches/0.56 metres), their ease of repair and maintenance (especially if cruising in remote areas), a slightly quieter ride because the outboards are mounted outside the hull, and finally, some owners were simply more familiar and comfortable with outboards.

Graf explained that the transition from single inboard to twin outboards involved significant design and engineering to get the hull shapes just right. The main issue was to dial in the hulls and the swim-step-mounted motor pods so that there was just the right amount of clean, smooth water getting to the props and also at the proper height relative to the cavitation plates—regardless of speed. The changes involved eliminating the starboard prop pocket, keel and rudder, reshaping the aft end of each hull, and extending the tracking pad at the bottom of each hull farther aft—and of course, adapting the swim step to accommodate the motor mounts.

After a number of prototypes, Graf got things just right—as we were experiencing on our sea trial. The two articulating outboards proved to be well-balanced, whether in unison or individually. We tried various combinations and tracking was excellent and on par with previous Aspens I had tested.

UNDERWAY When both motors were being used, our top speed was 25 knots. On our sea trials, fuel economy at speeds between about 14 and 22 knots ranged between 1.4 and 1.9 miles per gallon and 2.7 miles per gallon at a stately 6.5 knots. Compared to the single diesel, the outboards use about 15 percent more fuel, but the top speed is about 20 percent higher.
The only real downside to outboards is that they may not last as long as diesels. I was also impressed by the incredibly stable ride. Despite lots of large vessel traffic throwing big wakes in Guemes Channel, we didn’t need to brace ourselves. Of course, catamaran designs are inherently more stable than monohulls. It would be pretty hard to get seasick with such an easy, level motion. Another indicator that the new design works well was our tracking, as there was no tendency to wander off course.

Acceleration was fast and there was no cavitation when the throttles were firewalled. Manoeuvrability and turning radius at cruise speeds proved to be about the same as the single diesel. The outboard version, like the inboard version, comes with a standard bow thruster. However, with catamarans, the engines are mounted further outboard than on monohulls, making them inherently more manoeuvrable at low/idle speeds and when combined with the directional thrust from outboards, the C107 should be more manoeuvrable at low speeds than the diesel version for docking.

With the outboards on pods instead of the hull, sound levels were a comfortable 70 dB at 20 knots. Graf reports that he has since reduced inside noise.

1. The original Aspen C100 was redesigned to allow for outboard power. The changes required were many, and testing and tweaking was needed to dial-in the new hull shape.
2. A custom-built dinghy davit system was installed on the new C107 to allow for dinghy launching and retrieval, even with dual outboards.
even more by adding sound-deadening material up in the bow, at the waterline. As is often the case, it’s the wave slap that causes most of the noise in outboards mounted on pods, not the engine noise.

When running on only the 70-horsepower motor, we cruised along at a leisurely seven knots, though if we pushed it, we could squeeze out 11 knots. At idle, our speed was pretty well perfect for trolling, 1.6 knots. It wasn’t possible to get the higher rpms (5,600) with only the 70, due to the increased load. Fuel burn was unexpectedly good—between 3.7 and 10 miles per gallon depending on speed. Those numbers alone are impressive and better than monohulls with much larger engines.
It’s interesting to note that both outboards are designed to remain in the down position regardless of whether they are running or not. If only one motor is running, then the other is kept in neutral. This helps maintain straight-line tracking.

**ON DECK** The most noticeable physical difference between the C100 and the C107 is of course the outboards are mounted on the modified swim platform. The test boat, however, had another striking physical feature—its electrically-powered dinghy davit system. The owner wanted to store his dinghy between the outboards, so Larry did some thinking and engineering and built a great system. It launches and retrieves a seven-foot, 11-inch (2.4-metre) Walker Bay Superlight 240 with a six-horsepower outboard nicely into the chuck at the press of a button. The swim platform also contains a deep swim ladder, especially important to the owner, an avid scuba diver. This is a great, easy-to-use davit and I’m sure we’ll see it on future Aspens.

**INTERIOR** The C100 and C107 both share the same interior and cockpit layout (though there’s a ton more storage now that there is no diesel in the starboard pontoon). The interior, with Amtico synthetic teak flooring and optional wood window trim is cozy, warm and bright. Access to the quarterberth is immediately to port, under the linear galley. Ahead is the helm station. To starboard is a raised dinette (with hinged window to the cockpit), convertible to another berth, the helm companion seat and an angled staircase to the head, with shower and bow master. The athwartship king berth allows each partner to get in and out of bed without having to climb over each other.

Regardless of where one goes these days, or what manufacturer, it is clear that outboard power is coming on strong. Larry Graf is riding the wave, opening up a new market for his already-proven line of Aspen Power Catamarans. Base price is US$325,000 and price as tested, fully loaded with many custom, owner-specific options, was US$389,359.

**THE SPECS**

<table>
<thead>
<tr>
<th>LOA (motors down)</th>
<th>11.2 m / 36’ 8”</th>
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<tbody>
<tr>
<td>Beam</td>
<td>3 m / 10’</td>
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<tr>
<td>Draft (engines half tilt)</td>
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<tr>
<td>Holding</td>
<td>114 L / 30 USG</td>
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<tr>
<td>Std power</td>
<td>Yamaha 200 hp stbd, 70 hp port</td>
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